

USSR

IGNATOV, V. A., USSR Authors Certificate No 327509

to the outputs of the main and auxiliary phase shifters respectively, and the outputs are connected to the input of the register.

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USSR

UDC 621.313.333.001.5

IGNATOV, V. A., Candidate of Technical Sciences, POLYAK, L. M., Engineer,
MORDVINOV, V. A., Engineer

"Study of Asynchronous Motors with Printed Coaxial Windings"

Moscow, Elektrotehnika, No 3, 1971, pp 13-20

Abstract: A study was made of asynchronous motors with printed windings forming several coaxial stacks working on a common shaft. The theory of a generalized electric motor is used to derive the basic equations of the voltages and total moment [B. Arins, Obshchaya Teoriya Elektricheskikh Mashin, Gosenergoizdat Press, 1960]. This theory is convenient in that use of matrices makes it possible to derive the voltage and moment equations both for each unit motor for each pair of windings and the motor as a whole. The equations are derived for the case where the winding material of the rotor and the configuration of the winding conductors are identical for each of the k pairs of windings. Corresponding coefficients must be introduced if the specific resistance or conductor geometry of any part of the rotor windings is changed.

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UNCLASSIFIED

PROCESSING DATE--03JUL70

TITLE--FORMATION OF AMIDES OF 2-BENZOTHIADIAZOLE-SULFENIC ACID FROM
N-CHLORAPINES AND 2-MERCAPTOBENZOTHIADIAZOLE -L-
AUTHOR--IGRATOV, V.A., FI-GGCV, P.A.

COUNTRY OF INFO--USSR

SOURCE--REF. GETERITSKL. SOEDIN. 1970, (1), 89-92

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--THIAZOLE, BENZENE DERIVATIVE, AMIDE, MERCAPTAN, CHLORAMIDE,
OXIDATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY FEEL/FRAME--1980/1719

STEP AC--UR/C409/70/000/001/0089/0092

CIRC ACCESSION AC--AF0049757

UNCLASSIFIED

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5
13

Acc. Nr: **AP0049797** Abstracting Service:
CHEMICAL ABST. 5-70

Ref. Code:
U R 0409

100584y Formation of amides of 2-benzothiazolesulfenic acid from N-chloramines and 2-mercaptobenzothiazole. Ignatov, V. A.; Pirogov, P. A. (Nauch.-Issled Inst. Khimikatov-Dobavok Polim. Mater., Tombov, USSR). *Khim. Geterotsikl. Soedin.* 1970, (1), 89-92 (Russ). ArSNa (Ar = 2-benzothiazolyl), RR^1NCl (R = alkyl, R^1 = alkyl or H), and RR^1NH were reacted in H_2O , EtOH , or C_6H_6 at -3 to 65° 20-30 min, and the % yields of ArSNRR^1 and ArSSAr detd. The results show that the oxidn. of ArSH to ArSSAr in H_2O and EtOH is effected by HOCl , formed in the reaction $\text{RR}^1\text{NCl} + \text{H}_2\text{O} \rightleftharpoons \text{RR}^1\text{NH} + \text{HOCl}$.

J. Panchartek

REEL/FRAME
19801719

Construction

USSR

UDC 624.042.3:519.2

IGNATOV, V. P., Moscow

"Evaluating the Effect of Statistical Inhomogeneities in a Base on Forces in a Frame"

Moscow, Stroitel'naya mekhanika i raschet sooruzheniy, No. 3, 1972, pp 19-22

Abstract: A frame construction resting on a statistically nonhomogeneous Winkler base with the aid of individual or continuous beam foundations is discussed. It is noted that the physicomaterial characteristics of a ground massif in a natural deposit vary even over small areas and that this change has a stochastic character; the soil foundation in this case is considered statistically nonhomogeneous. Due to this nonhomogeneity the forces in the frame will have a spread relative to the average values obtained for a deterministic base. The method of forces in matrix form is used to determine the probability characteristics of the spread of the forces in terms of the correlation theory of random functions. A sample calculation is made showing a frame structure on an elastic base loaded by a force in the middle of the upper cross bar. The width of the foundation beam is 1 m, its rigidity is 6000 tm^2 , and the rigidity of the remaining

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IGNATOV, V. P., Stroitel'naya mekhanika i raschet sooruzheniy, No. 3, 1972, pp 19-22

rods of the frame are the same and equal to 3660 tm^2 . The mathematical expectation of the bed coefficient is taken as 1500 t/m^3 and its dispersion is $90,000 \text{ t}^2/\text{m}^6$. Tables are given showing the mathematical expectations of the bending moments M and their beam square deviation σ_M at reference cross sections of the rods of the frame and at characteristic points of the beam. The results show that under a normal distribution of the bed coefficient the probability of the rise of a support moment greater than $M + \sigma_M = 0.1038$ is equal to 0.1586. For a frame on individual foundations its mean square deviation rises along with a rise in the mathematical expectation of the moment in the lower cross bar, indicating greater sensitivity to inhomogeneities in the foundation.

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Microbiology

USSR

UDC 575.123:576.851

IGNATOV, V. V., SHENDEROV, B. A., PANASENKO, V. I., PIDENKO, A. P., and
MAGAGINA, A. N., Saratov State University imeni N. G. Chernyshevskiy,
Saratov

"Elimination of the Genetic Determinants of Resistance in Staphylococcus
aureus Under the Effect of an Intensive Electromagnetic Field"

Moscow, Genetika, Vol 9, No 4, Apr 73, pp 57-61

Abstract: Two strains of Staph. aureus, 33 and 1074, were subjected to the action of an electromagnetic field with a frequency of 2375 megacycles and an intensity of 1516 kw. The strains, which had been isolated from patients, were typical with respect to their microbiological properties. They were polyresistant to penicillin, tetracycline, chloramphenicol, streptomycin, erythromycin, mercuric chloride, and albucide. Under the action of the electromagnetic field, some of the determinants of drug resistance were eliminated. The effect was due to the action of heat produced by the electromagnetic waves. A great number of cultures differing with respect to the determinants of drug resistance that had been eliminated could be segregated. After being stored for 10 mos in 0.8% Hottinger agar at 4°, the majority of segregated cultures retained their new type of drug resistance.

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IGNATOV, V. V., et al., Genetika, Vol 9, No 4, Apr 73, pp 57-61

In some cases, however, there was restoration of some of the lost factors of drug resistance, but not of all of them. The phenomenon described can be used for the study of the extra-chromosomal determinants in microorganisms that are responsible for drug resistance.

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Ignatov, V.V.

PLANNING ATOMIC ELECTRIC POWER STATIONS WITH STEAM-COOLED REACTORS

(Article by D. P. Kalafat, doctor technical sciences, and S. I. Petrov and V. V. Ignatov, engineers, Moscow, Elektrostaniya, Moscow, No. 3, 1977, pp. 88-92)

UDC 621.311.2:621.396.87)

The coolant continuously used in atomic reactors are water under pressure or boiling water, liquid metals, and gases. It is possible, however, to use also superheated steam as a coolant for atomic reactors. Steam-cooled reactors differ from boiling-water reactors with steam superheat in that there is no boiling of the coolant in them.

Even in the combined system of a boiling reactor (BWR) connected in tandem with a reactor for separate steam superheat (SSR) [1 - 3], the reactor reactor is in essence steam-cooled, but does not constitute in this case an independent power installation.

As an independent power installation one can use a steam-cooled reactor with external evaporation in two variants:

- with the steam coolant obtained at saturation temperature in a minuscule type boiler (boiler scheme);
- with a surface-type steam generator.

The boiler scheme was previously used in steam generators using both oil fuel, and some of them are in operation to this day in a number of power plants. Such a steam generator was in operation until 1967 in the USSR at the Novosibirsk thermal power plant No. 9. The boiler scheme for atomic electric stations is characterized by the fact that the reactor is cooled with superheated steam (Fig. 1).

About 1/4 of the superheated steam from the reactor goes to the turbine, and the remaining 3/4 is diverted for intermediate superheating, after which it enters into a steam generator of the mixing type, where superheated steam from the feedwater results in dry saturated steam that is fed with a compressor into the reactor for new superheating [4, 5]. The intermediate

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UDC: 621.391.519.2

SHAKHGIL'DYAN, V. V., IGNATOV, Yu. F.

"Quasi-Optimum Reception of FM and PM Signals With Non-Gaussian A Priori Statistics"

V sb. Metody pomakhoustoychivogo priyema ChM i FM (Methods of Interference-Free FM and PM Reception--collection of works), Moscow, "Sov. radio", 1970, pp 56-61 (from RZh-Radiotekhnika, No 12, Dec 70, Abstract No 12A84)

Translation: The structure of a quasi-optimum receiver of frequency-modulated and phase-modulated signals is synthesized by methods of the theory of conditional Markov processes. It is assumed that the a priori statistics of the modulation signal are non-Gaussian. Specific definition of the filtration equations leads to systems of automatic frequency control with nonlinear control circuit. Specific examples are given of filtering of a clipped FM signal and a PM signal with non-Gaussian a priori statistics. The results are compared with data for filtration of a signal with Gaussian a priori statistics. In this case the use of a nonlinear control circuit does not give any appreciable advantage with respect to filtration quality. However, a special example is given where the effectiveness of nonlinear filtration over linear filtration is demonstrated. Resumé.

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1/2 021 UNCLASSIFIED PROCESSING DATE--02OCT70
TITLE--QUASI OPTIMAL DETECTION OF FM SIGNALS IN NOISE -U-

AUTHOR--IGNATOV, YU.F.

COUNTRY OF INFO--USSR

SOURCE--KIEV, IZVESTIYA VUZOV SSR-RADIOELEKTRONIKA, VOL 13, NO 2, 1970, PP
171-180

DATE PUBLISHED-----70

SUBJECT AREAS--NAVIGATION

TOPIC TAGS--FM RECEIVER, WHITE NOISE, SIGNAL DETECTION, RELIABILITY,
FREQUENCY CONTROL, GAUSSIAN DISTRIBUTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FREAME--1991/0153

STEP NO--UR/0452/70/013/002/0171/0180

CIRC ACCESSION NO--AP0110119

UNCLASSIFIED

2/2 021

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0110119

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A QUASI OPTIMAL RECEIVER FOR THE DETECTION OF FM SIGNALS OF VARIABLE FREQUENCY IN WHITE NOISE IS DESIGNED IN THE GAUSSIAN APPROXIMATION. JUSTIFIED IN ITS APPLICATION TO PROBLEMS IN WHICH RELIABLE SYSTEM OPERATION IS REQUIRED, THE APPROXIMATION SIMPLIFIES INVESTIGATION OF THE QUALITY OF DETECTION. THIS PAPER OFFERS A SOLUTION TO THE PROBLEM OF QUASI OPTIMAL FM DETECTION INVOLVING AN ATYPICAL PHASE AFC SYSTEM, AND THEREBY MAKES SPECIFIC THE RESULTS OBTAINED BY A. N. SHIRYAYEV. A BLOCK DIAGRAM OF THE QUASI OPTIMAL RECEIVER ARRANGEMENT IS GIVEN, AND THE QUALITY OF ITS OPERATION IS INVESTIGATED. IT IS ASSERTED THAT THE SOLUTION OF THE PROBLEM OF DETECTION IN THE NON GAUSSIAN APPROXIMATION REQUIRES SPECIAL STUDY.

UNCLASSIFIED

USSR

UDC 621.391.8

IGNATOV, Yu. F.

"Quasi-Optimal Detection of FM Signals in Noise"

Kiev, Izvestiya VUZov SSSR-Radioelektronika, Vol 13, No 2, 1970, pp 171-180

Abstract: A quasi-optimal receiver for the detection of FM signals of variable frequency in white noise is designed in the Gaussian approximation. Justified in its application to problems in which reliable system operation is required, the approximation simplifies investigation of the quality of detection. This paper offers a solution to the problem of quasi-optimal FM detection involving an atypical phase AFC system, and thereby makes specific the results obtained by A. N. Shiryayev. A block diagram of the quasi-optimal receiver arrangement is given, and the quality of its operation is investigated. It is asserted that the solution of the problem of detection in the non-Gaussian approximation requires special study.

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USSR

UDC 621.372.061

SHAKHGILDYAN, V. V., IGNATOV, YU. F.

"Investigation of the Effect of Noise on the Operation of an Automatic Phase Frequency Control"

Tr. Mosk. elektrotekhn. in-ta svyazi (Works of Moscow Electrotechnical Communications Institute), 1970, vyp. 1, pp 104-108 (from RZh-Radiotekhnika, No 9, Sep 70, Abstract No 9A49)

Translation: This article contains a study of the statistical properties of an FAPCh [automatic phase frequency control] system with a proportional integrating filter. The bibliography has seven entries.

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UDC: 616.981.232-036.22-616.831.9-022-022.7-036.22

USSR

FAVOROVA, L.A., MIRONOVA, T.K., MARGOLINA, M.S., POKROVSKIY, V.I., VENGEROV, YU.YA., KOSTYUKOVA, N.N., AND IGNATOV, YU.I., Institute of Epidemiology and Microbiology imeni Gamaleya, Academy of Medical Sciences USSR, and Central Institute of Epidemiology

"Epidemiological Analysis of Outbreaks of Epidemic Cerebrospinal Meningitis Report!"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 2, 1970, pp 95-100

Abstract: The incidence of cerebrospinal meningitis in the Soviet Union dropped over 25 years ago to a very low level and stabilized. Only isolated cases were reported until 1967-1968, when minor epidemics of the disease occurred in a number of inhabited places. These outbreaks had a number of features in common: frequency of mostly asymptomatic nasopharyngitis not detected by physicians, prevalence of the carrier state, infection mostly among children 12-20, especially those living under extremely crowded conditions in boarding schools, and occurrence in the fall and spring. The various control measures adopted halted the spread of the disease but not the carrier state, which persisted until the children returned to their homes for holiday vacations.

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Acc. Nr: AP0044201

Ref. Code: UR 0016

PRIMARY SOURCE: Zhurnal Mikrobiologii, Epidemiologii, i
Immunobiologii, 1970, Nr 2, pp 95-100

EPIDEMIOLOGICAL ANALYSIS OF OUTBREAKS
OF MENINGOCOCCUS INFECTION

REPORT I

Favorova, L. A.; Mironova, T. K.; Margolina, M. S.;
Pokrovskiy, V. I.; Vengerov, Yu. Ya.; Kostyukova, N. N.;
Ignatov, Yu. I.

The authors present materials concerning epidemiological and microbiological characteristics of outbreaks of meningococcus infection which occurred in 1967—1968 against the background of prolonged epidemiological welfare. The outbreaks, characterized by individual cases of the disease, widespread nasopharyngitis and carrier state, had a number of characteristic epidemiological signs (autumnospring seasonal prevalence, the patients' age range — from 12 to 20 years, and marked «nidality» of meningitis cases).

Strains of meningococci isolated from carriers differed in serological respect: along with types A, B and C there occurred many nonagglutinating strains, and also polyagglutinable and spontaneously agglutinating cultures.

REEL / FRAME
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Ignatova, G. G.

SPRS 56499
14 July 72

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prelaunching, including the results obtained during the registration of physiological parameters several hours prior to the launching (Pl-1) and during the periods of the five-minute countdown (Pl-2);

active segment (Ac), the segment in which the spaceship is put into orbit;

orbital flight (Or);

descent segment (D).

The collected data were grouped in accordance with the stages in training and conducting space flight. The following periods were discriminated:

preflight (P) period, including data obtained in the examination of crews during ordinary work activity 15-20 days prior to the flight;

Article by V. I. Antonov, V. A. Butusov, V. A. Gerasimov, V. A. D. Yegorov, N. A. Iveshina, G. G. Ignatova, V. I. Min, A. P. Polyakov and I. B. Stetsunov, Moscow, Akademiya Voprosy Kosmonavticheskoy Biologii i Meditsiny (Current Problems in Space Biology and Medicine), Russian, 1971, pp 9-11/

Acc. Nr:

AP0049776

Abstracting Service:

CHEMICAL ABST. 5-70

Ref. Code:

UR0191

99958q Use of alcohols from wide fractions for preparing unsymmetrical adipates and maleates. ~~Ignatova, G. N.~~; Puchkova, V. V.; Moskovkina, E. M.; Grishko, N. I.; Balashova, T. S.; Shlenskaya, T. N. (USSR). *Plast. Massy* 1970, (1), 17-20 (Russ). Unsym. maleates and adipates, e.g., Bu nonyl maleate, Bu undecyl maleate, maleates from C₃₋₁₂ and C_{7-n} alcs., Bu nonyl adipate, and adipates from C₈₋₁₂, C₇₋₉, C₁₂₋₁₆ alcs. were prepd. by a 2-stage procedure. Thus, maleic anhydride and the higher alc. were refluxed (in 1:1.02 molar ratio) at 70-90° without a catalyst, then the lower alc. was added (in a 20% excess) and the mixt. was further refluxed with H₂SO₄ at 140-50°. For unsym. adipates the starting material was adipic acid. The content of the monoester in the reaction mixt. was detd. by ir spectroscopy. The unsym. adipates and maleates were used for the modification of poly(vinyl chloride) (I). Modified I exhibited excellent freeze resistance (to -55°) and good physicomach. properties. CKJR -

REEL/FRA
19801694

1/2 009 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--ALCOHOLYSIS DURING THE PREPARATION OF UNSYMMETRIC DIESTERS OF
PHTHALIC ACID -U-
AUTHOR--(05)--KOMAROVA, R.P., ZVESOKINA, L.I., IGNATOVA, G.N., GRISHKO,
N.I., LUKIEV, S.M.
CCOUNTRY OF INFO--USSR
SOURCE--ZH. PRIKL. KHIM. (LENINGRAD) 1970, 43(5), 1186-8
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--PHTHALATE, ALCOHOLYSIS, ESTERIFICATION, GAS CHROMATOGRAPHY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3004/1943 STEP NO--UR/0080/70/043/005/1186/1188
CIRC ACCESSION NO--AP0132204
UNCLASSIFIED

2/2 009

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0132204

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MONOAMYL PHTHALATE (I) OR MONONONYL PHTHALATE (II) WERE ESTERIFIED WITH NONYL ALC. OR AMYL ALC., RESP., IN THE PRESENCE OF 1.0PERCENT H SUB2 SO SUB4 (ON I OR II). GAS CHROMATOG. OF THE UNSYM. DIESTER SHOWED THAT AT THE OPTIMUM REACTION CONDITIONS BETTER YIELDS WERE OBTAINED WHEN II WAS USED AS A STARTING ESTER. I UNDERGOES ALCOHOLYSIS FASTER THAN II DECREASING THE FINAL YIELDS.

UNCLASSIFIED

USSR

GORYAYEV, M. I., ARTAMONOV, A. F., and IGNATOVA, I. A.

"A Purification Method for Naphtenic Acids"

USSR Author's Certificate No 362813, filed 4 Dec 70, published 27 Feb 73
(from RZh-Khimiya, No 19, Oct 73, Abstract No 19N558,P)

Translation: Technical naphtenic acids [NA] obtained by catalytic oxidation of naphtenic hydrocarbons are purified from the carcinogenic admixtures and aromatic hydrocarbons by treatment with ozone at $\leq 30^{\circ}$. Example. 50 g NA (acid number 153, n_D^{20} 1.4830) containing $1.8 \cdot 10^{-7}$ g/g of 3,4-benzpyrene is ozonized for 15 min (ozone consumption 0.03 g). After ozonization no I can be detected by the luminescence-spectral method (the sensitivity of this method is 10^{-9} g/ml). NA is used as growth stimulator in plant growing and animal husbandry.

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1/2 026 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--INTRAMOLECULAR REARRANGEMENT OF SUBSTITUTED
3,6-DIHYDRO-2,1H-PYRIMIDINE-2-THIONES -U-
AUTHOR--(03)-IGNATOVA, L.A., OVECHKIN, P.L., UNKOVSKIY, B.V.
COUNTRY OF INFO--USSR
SOURCE--ZH. VSES. KHIM. DOKLADY. 1970, 15(2), 238
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--INTRAMOLECULAR MECHANICS, PYRIMIDINE, ORGANIC SYNTHESIS,
CHEMICAL REACTION MECHANISM, MOLECULAR STRUCTURE, IR SPECTRUM, UV
SPECTRUM, THIOL
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3002/1061 STEP NO--UR/0063/70/015/002/0238/0238
CIRC ACCESSION NO--AP0128488
UNCLASSIFIED

2/2 026

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0128488

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. HEATING 0.67 G

4,6,6,TRIMETHYL,3,PHENYL,3,6,DIHYDRO,2(1H),PYRIMIDINETHIONE 0.5 HR WITH
CONCD. HCL GAVE 0.47 G 4,4,6,TRIMETHYL,2,PHENYLAMINO,4H,1,3,THIAZINE, M.
122-3.5DEGREES. THE STRUCTURE WAS CONFIRMED BY IR AND UV SPECTRA. A
MECHANISM FOR THE REACTION WAS PROPOSED. FACILITY: MOSK. INST.
TONKOL KHIM. TEKHNOL. IM. LOMONOSOVA, MOSCOW, USSR.

UNCLASSIFIED

1/2 015 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--TRANSCORTIN BINDING PROPERTIES AT HYPERTENSION IN THE GENEALOGICAL
ASPECT AND TWINS STUDIES -U-
AUTHOR--(04)-GERASIMOVA, YE.N., IGNATOVA, L.N., RYVKIN, I.A., RYABTSEVA,
S.V.
COUNTRY OF INFO--USSR
SOURCE--VOPROSY MEDITSINSKOY KHIMII, 1970, VOL 16, NR 3, PP 296-300
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--HYPERTENSION, HEREDITARY DISEASE, HUMAN GENETICS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1998/0145 STEP NO--UR/0301/70/016/003/0296/0300
CIRC ACCESSION NO--AP0120845
UNCLASSIFIED

2/2 015 UNCLASSIFIED PROCESSING DATE--23OCT70
CIRC ACCESSION NO--AP0120845
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE BINDING PROPERTIES OF
TRANSCORTIN IN PATIENTS WITH HYPERTENSION ARE DECREASED. THE ANALOGOUS
PICTURE WAS SHOWN IN MEN WITH NORMAL BLOOD TENSION WHOSE PARENTS WERE
SUFFERED WITH HYPERTENSION. IN ONE EGG TWINS THE PRONOUNCED CONCORDANCE
IN THIS FEATURE WAS DEMONSTRATED. THIS CONCORDANCE WAS WELL CORRELATED
WITH THE ARTERIAL TENSION LEVEL. THE DATA PRESENTED POINT TO THE
INVOLVEMENT OF HEREDITARY FACTORS, REALIZING IN THE COURSE OF
HYPERTENSION DEVELOPMENT, IN THE DETERMINATION OF TRANSCORTIN BINDING
LEVEL. IT MAY BE SUPPOSED THAT THIS ONE OF THE POSSIBLE MECHANISMS OF
TRANSMISSION OF HEREDITARY PREDISPOSITION TO HYPERTENSION.
FACILITY: THE DEPARTMENT OF BIOCHEMISTRY I ST MEDICAL INSTITUTE AND A.
L. MYASNIKOV CARDIOLOGY INSTITUTE USSR ACADEMY OF MEDICAL SCIENCES,
MOSCOW.

UNCLASSIFIED

1/2 020 UNCLASSIFIED
TITLE--FAMILIAL NEPHRITIS IN CHILDREN -U-

PROCESSING DATE--20NOV70

AUTHOR--(C4)--IGNATOV, N.S., BRISKINA, M.M., ECKEYEV, V.V., ARTEMKINA,
L.A.
COUNTRY OF INFO--USSR

SOURCE--PEDIATRIYA 49(2): 8-13. ILLUS. 1970

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PEDIATRICS, NEPHRITIS, AUDITION, HEREDITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3007/0542

STEP NO--UR/0546/70/049/002/0008/0013

CIRC ACCESSION NO--AP0135235

UNCLASSIFIED

2/2 020

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0135835

ABSTRACT/EXTRACT--(U) OP-C- ABSTRACT. A TOTAL OF 29 CHILDREN OUT OF 18 WITH FAMILIAL NATURE OF NEPHRITIS WERE OBSERVED. ALL THE PATIENTS WERE DIVIDED INTO THE FOLLOWING GROUPS: THE 1ST GROUP INCLUDED 7 CHILDREN OUT OF 4 FAMILIES IN WHOM THE DISEASE WAS CHARACTERIZED BY A DIFFERENT DEGREE OF THE NEPHROTIC SYNDROME MARKEDNESS; THE 2ND GROUP INCLUDED 22 CHILDREN FROM 15 FAMILIES IN WHOM STABLE HEMATURIA WAS ONE OF THE MAIN CLINICAL MANIFESTATIONS. IN 4 CHILDREN HEMATURIA WAS COMBINED WITH DEFECTIVE HEARING, I.E. ALFORT'S SYNDROME WAS MARKED. THE DISEASE RAN A MORE SEVERE COURSE IN MALE PATIENTS, THE SEVERITY GREW WITH AGE AND WAS APPARENTLY DUE TO THE DEVELOPMENT OF ENPHROSCLEROSIS. THE DATA ARE GIVEN OF THE CLINICO GENETIC ANALYSIS REVEALING NUMEROUS CASES OF NEPHROPATHY IN SOME FAMILIES. POSSIBLE MECHANISMS OF GENETIC HEREDITY OF FAMILIAL NEPHROPATHY ARE DISCUSSED. FACILITY: DEP. PEDIAT., GENI. INST. POSTGRAD. MED., MOSCOW, USSR.

UNCLASSIFIED

1/2 014 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--THE STUDY OF PRIMARY PYELONEPHRITIS IN CHILDREN -U-

AUTHOR--(05)-MATVEYEV, M.P., IGNATOVA, M.S., KLEBOVSKIY, A.I., KROVINA,
N.A., TEVOSEAN, V.K.
COUNTRY OF INFO--USSR

SOURCE--PEDIATRIYA 49(2): 34-40. ILLUS. 1970

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--GENITOURINARY SYSTEM DISEASE, KIDNEY, NEPHRITIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO----FD70/605006/E12 STEP NO--UR/0546/70/049/002/0034/0040

CIRC ACCESSION NO--AT0139810

UNCLASSIFIED

2/2 014 UNCLASSIFIED PROCESSING DATE--04DEC70
CIRC ACCESSION NO--AT0139810
ABSTRACT/EXTRACT--(U) GP-O- ABSTRACT. THE PROBLEM OF PYELONEPHRITIS HAS
BECOME ONE OF THE PRINCIPLE ONES IN NEPHROLOGY. CLINICAL, LABORATORY,
ROENTGENOLOGICAL AND MORPHOLOGICAL CHARACTERISTICS OF 50 CHILDREN WITH
AN INFECTIOUS PROCESS IN THE URINARY SYSTEM WERE GIVEN. THE
INVESTIGATIONS CONDUCTED MADE IT POSSIBLE TO SINGLE OUT 3 GROUPS OF
CHILDREN: THE FIRST GROUP INCLUDED CHILDREN (12) WITH DISTINCT CLINICAL
AND ROENTGENOLOGICAL SIGNS OF PYELONEPHRITIS, THE SECOND GROUP INCLUDED
CHILDREN (12) WITHOUT ROENTGENOLOGICAL SIGNS OF PYELONEPHRITIS AND
MINIMUM BIOCHEMICAL SHIFTS OF THE BLOOD, WHO WERE REGARDED AS PATIENTS
WITH AN INFECTION OF THE URINARY SYSTEM. CHILDREN OF THE THIRD GROUP
(26), IN WHOM IN SPITE OF THE NORMAL X RAY PICTURE OF THE KIDNEYS
ALONGSIDE PROTEINURIA, LEUKOCYTURIA AND BACTERIURIA MARKED SHIFTS OF
PROTEIN, LIPID AND MUCOID METABOLISM, A TENDENCY TOWARDS THE TUBULAR
FUNCTION WERE OBSERVED, COULD BE REGARDED AS PATIENTS WITH THE INITIAL
PYELONEPHROTIC AFFECTATION OF THE KIDNEYS. FACILITY: DEP.
PEDIAT., CENT. INST. POSTGRAD, MED., MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 547.794:543.422

SHVETSOV-SHILOVSKIY, N. I., IGNATOVA, N. P., BOBKOVA, R. G., MANYUKHINA, V. YA.,
and MEL'NIKOV, N. N.

"Some Derivatives of Phosphadiazoles-1,2,3"

Leningrad, Zhurnal Obshchey Khimii, Vol 42 (104), No 9, Sep 72, pp 1939-1941

Abstract: Continuing the study of the reaction of phosphorus trichloride with hydrazones, β -Cyanoethylhydrazones of acetone, acetophenone and p-bromoacetophenone were reacted with PCl_3 , yielding derivatives of phosphadiazole-1,2,3. Benzoyl- and carbobutoxyhydrazones of acetone reacted with PCl_3 to yield 2-substituted phosphadiazoles. Adding aniline to 2-acetyl-4-methylphosphadiazole along the -P:C bond gave 1-anilino-2-acetyl-4-methylphosphadiazole-1,2,3. Analogously starting with 2-acetyl-4-methyl-1-chloro-1,5-dihydrophosphadiazole and 8-hydroxyquinoline, 2-acetyl-4-methyl-1-(8-hydroxyquinoliny1)phosphadiazole-1,2,3 was obtained.

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- 45 -

USSR

UDC 543.51.547.1'118

KOSTYANOVSKIY, R. G., PLEKHANOV, V. G., IGNATOVA, N. P., BOBKOVA, R. G., and SHVETSOV-SHILOVSKIY, N. I., Institute of Chemical Physics, Academy of Sciences USSR

"Mass Spectra of 1,2,3-Phosphadiazoles"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 11, Nov 71, p 2611

Abstract: The authors studied the electron impact-induced decay of a new class of compounds with a 2-coordinate phosphorus atom. Mass spectral data confirm the aromatic character of 1,2,3-phosphadiazoles.

1/1

USSR

UDC 547.794:543.422

SHVETSOV-SHILOVSKIY, N. I., IGNATOVA, N. P., and MEL'NIKOV, N. N., All-Union Scientific Research Institute of Chemical Plant Protectants

"Reaction of Substituted Hydrazones with Phosphorus Trichloride"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 7, Jul 70, pp 1501-1505

Abstract: The reaction of phenylhydrazones of aliphatic methyl ketones with phosphorus trichloride, resulting in the formation of 4-alkyl-2-phenyl-1,2,3-phosphadiazoles, is extended to cover other arylhydrazones and acylhydrazones. The interaction of phosphorus trichloride with acetone acetylhydrazone gave 1-chloro-4-methyl-2-acetyl-1,5-dihydro-1,2,3-phosphadiazole (I), the structure of which was confirmed by the presence of an azomethine group (1633 cm^{-1}) and carbonyl amide (1691 cm^{-1}) line in its IR spectrum. I reacted with alcohols in the presence of triethylamine to give 4-methyl-1-alkoxy-2-acetyl-1,5-dihydro-1,2,3-phosphadiazoles and with aromatic amines or nitrogen heterocycles taken in excess to give 4-methyl-1-amido-2-acetyl-1,5-dihydro-1,2,3-phosphadiazoles. The action of triethylamine on I gave 4-methyl-2-acetyl-1,2,3-phosphadiazole.

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1/2 017
UNCLASSIFIED
TITLE—SELECTION AND CHARACTERISTICS OF L CELL SUBLINES RESISTANT TO
8, AZAGUANINE —U—
AUTHOR—(04)—ADOMAYTIYENE, D., IGNATOVA, T.N., PODGAYETSKAYA, D.YA.,
GERSHUN, V.A.
COUNTRY OF INFO—USSR
SOURCE—TSITLLCGIYA 1970, 12(4), 457-64
DATE PUBLISHED—70
SUBJECT AREAS—BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS—TUMOR, TISSUE CULTURE, GUANINE, ORGANIC NITROGEN COMPOUND,
DRUG RESISTANCE
CENTRAL MARKING—NO RESTRICTIONS
DOCUMENT CLASS—UNCLASSIFIED
PROXY REEL/FRACTION—3002/0414
STEP NO—UR/9053/70/012/004/0457/0464
CIRC ACCESSION NO—AP0127585
UNCLASSIFIED

2/2 017

CIRC ACCESSION NO--AP0127985
ABSTRACT/EXTRACT--(U) GP-0-

UNCLASSIFIED

PROCESSING DATE--20NOV70

ABSTRACT. L CELL SUBLINES RESISTANT TO 8-AZAGUANINE WERE OBTAINED DURING TREATMENT WITH THIS COMPD., AND RETAINED THEIR RESISTANCE AFTER SEVERAL MONTHS OF REPRODUCTION IN VIVO AND IN VITRO EVEN IN THE ABSENCE OF DRUGS, SUGGESTING THE HEREDITARY NATURE OF THE PROPERTY. THESE CELLS WERE ALSO RESISTANT TO 6-MERCAPTOPURINE AND SENSITIVE TO 8-AZAADENINE. RESISTANCE TO BOTH 8-AZA NUCLEOTIDE BASES WAS NOT ACCOMPANIED BY CHANGES IN KARYOTYPE BUT INVOLVED LOSS OF A SOL. ANTIGEN. BOTH SENSITIVE AND RESISTANT LINES HAD SIMILAR GUANYLIC ACID PYROPHOSPHORYLASE ACTIVITY, BUT THE SENSITIVE POPULATION WAS NOT ABLE TO UTILIZE EXOGENOUS HYPOXANTHINE.
FACILITY: LAB. GENET. TUMOR CELLS, INST. CYTOL., LENINGRAD, USSR.

UNCLASSIFIED

1/2 027

UNCLASSIFIED

PROCESSING DATE--11SEP70

TITLE--AMYLASE INDUCTION IN L-CELLS. EFFECT OF THE MODE OF CELL
HARVESTING ON THE AMOUNT OF REGISTERED AMYLASE ACTIVITY -U-
AUTHOR--PODGAYETSKAYA, D.YA., GERSHUN, V.A., IGNATOVA, T.N., BLINOVA,
M.I., FRIDLYANSKAYA, I.I.
COUNTRY OF INFO--USSR

SOURCE--TSITOLOGIYA 1970, 12(2), 253-6

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--TISSUE CULTURE, CULTURE MEDIUM, AMYLASE, BIOSYNTHESIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1986/0943

STEP NO--UR/9053/70/012/002/0253/0256

CIRC ACCESSION NO--AP0102884

UNCLASSIFIED

2/2 027

CIRC ACCESSION NO--AP0102884

UNCLASSIFIED

PROCESSING DATE--11SEP70

ABSTRACT/EXTRACT--(P) GP-0- ABSTRACT. INCREASED AMYLASE ACTIVITY IN L
CELLS AFTER ADDN. OF STARCH TO THEIR NUTRIENT TRYPSIN CONTG. MEDIUM
INDICATE SUBSTRATE INDUCTION OF ENZYME SYNTHESIS. THE SIZE OF THE
REGISTERED EFFECT COULD BE CHANGED BY DIFFERENT METHODS OF HARVESTING
CELLS FROM THE GLASS. DURING MECH. OR SIMPLE HARVESTING, INDUCTION
DECREASED.

UNCLASSIFIED

USSR

UDC: 666.764.32

IGNATOVA, T. S., BELYAKOVA, N. P., PERMIKINA, N. M., SEMKINA, N. V.,
MYAKISHEVA, N. A., and YEVDOKIMOVA, Z. U., Eastern Institute of Refractories

"Effect of Technological Factors on the Density and Microstructure of
Corundum Ceramics Containing 1% Titanium Oxide"

Moscow, Ogneupory, No 8, 70, pp 32-35

Abstract: This study demonstrates the dependence of the microstructure and the density of corundum ceramics on the method of grinding, the dispersity of the silica, the method of molding and the annealing temperatures of the finished product. A higher dispersity, vibratory grinding, high annealing temperatures, and TiO_2 additions promote the formation of a macrocrystalline structure, which in turn is responsible for the greater heat resistance of the material. A higher dispersity of the silica increases the intensity of

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IGNATOVA, T. S., et al, Ogneupory, No 8, 70, pp 32-35

crystallization at high temperatures and initiates recrystallization of corundum at a much lower annealing temperature. Vibratory grinding intensifies recrystallization and the formation of a macrocrystalline structure, which causes loosening of the body and decreases the density. It appears that the higher thermal resistance and lower strength of corundum parts with macrocrystalline structures are related to some increase in apparent porosity.

1/3 038

UNCLASSIFIED

PROCESSING DATE--090670

TITLE--CORROSION RESISTANCE OF REFRACTORY MATERIALS IN ANTIMONY SALT MELTS
-U-

AUTHOR--(04)--BULDAKOV, A.A., RUZLOVSKIY, A.A., IGNATOVA, T.S., NAZAROVA,
T.I.

COUNTRY OF INFO--USSR

SOURCE--OGNEUPORY 1970, 35(1), 35-7

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--MAGNESIUM OXIDE, ALUMINUM OXIDE, TIN, ALLOY, REFRACTORY
MATERIAL, ANTIMONY, SODIUM CHLORIDE, POTASSIUM CHLORIDE, ELECTROLYTE,
LEAD, IRON, COPPER, CORROSION RESISTANCE, METAL POWDER/UISUZ ANTIMONY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1993/1955

STEP NO--UR/0131/70/035/001/0035/0037

CIRC ACCESSION NO--AP0114373

UNCLASSIFIED

2/3 038

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0114373

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CORROSION RESISTANCE OF A LARGE NO. OF REFRACTORY MATERIALS SIMULTANEOUSLY IN CONTACT FOR 250 HR WITH SB SALTS AND NACL PLUS KCL SOLN. AT 800DEGREES IN AN EXPTL. INDUSTRIAL ELECTROLYZER WAS DETD. THE ELECTROLYTE CONTAINED EQUIMOLAR MIXT. OF TECH. GRADE NACL AND KCL. INTERACTION OF THE MATERIALS USED OCCURRED NOT ONLY WITH CHLORIDES BUT ALSO WITH SOLNS. OF NA AND K IN THESE CHLORIDES. THE ELECTROLYTE WAS SATD. WITH IMPURITIES CONSISTING OF PB 0.25-0.60, FE 0.04-0.28, CU 0.008-0.07, NI 0.001, AS 0.01-0.054, AND S 0.14-0.595PERCENT. RECTANGULAR PRISMS OR TABLOID SHAPED SPECIMENS OF MGO, AL SUB2 O SUB3, AIN, SI SUB3 N SUB4, BN, 80BN PLUS 20SI SUB3 N SUB4, 60BN PLUS 40SI SUB3 N SUB4, 76SI SUB3 N SUB4 PLUS SIC, 20MGO PLUS 80SI SUB3 N SUB4, 40MGO PLUS 60SI SUB3 N SUB4, KMG SUB3 SI SUB3 ALO SUB10 F SUB2 AND OF CEMENT OF MG PHOSPHATE WITH CARBORUNDUM FILLER WERE TESTED. THESE WERE PLACED VERTICALLY IN A GRAPHITE CRUCIBLE OF 30 MM HEIGHT AND 20 MM DIAM. WHICH WAS HALF FILLED WITH POWDER OF SB (SU-2 GRADE). AN OPENING OF 4 MM DIAM. WAS MADE IN THE UPPER PART OF THE CRUCIBLE FOR CIRCULATION OF THE ELCTROLYTE. THESE SPECIMENS WERE THEN SUBJECTED TO THE ACTION OF SB MELT AND THE ELECTROLYTE AT 800DEGREES CRUCIBLE WAS HEATED IN A SILIT OVRN. SPECIMENS WERE THEN WEIGHED AFTER BOILING IN DISTD. WATER FOR 14 HR AND DRIED AT 150DEGREES FOR 10 HR. THE OUTER APPEARANCE AND THE CONDITION OF SPECIMENS AFTER TESTING HAVE BEEN GIVEN.

UNCLASSIFIED

3/3 038

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0114373

ABSTRACT/EXTRACT--MGU, AL SUB2 O SUB3, AIN, 20MGD PLUS 80SI SUB3 N SUB4,
40MGU.60SI SUB3 N SUB4, AND KMG SUB3 SI SUB3 ALO SUB10 F SUB2 ARE
RECOMMENDED AS QUALITY MATERIALS FOR REFINING OF SB FROM ALLOYS BECAUSE
OF THEIR GOOD CORROSION RESISTANCE. FACILITY: VOST. INST.
OGNEUPOR., SVERDLYVSK, USSR.

UNCLASSIFIED

USSR

UDC 632.95

KULIBABA, Yu. F., and IGNATOVA, Ye. A., Scientific Research Institute of Horticulture and Floriculture, and Sochin Toxicological Laboratory, All Union Institute of Plant Protection

"Pesticides for the Protection of Flori-Decorative Cultures"

Moscow, Khimiya v Sel'skom Khozyzystve, Vol 11, No 8 (118), 1973, pp 40-42

Abstract: The preparations: benzophosphate, amiphos, DDVF, sayphos, and phosphamide are effective against haustellate pests of the floridecorative cultures. Against the rose powdery mildew best results were obtained with caratan, euparene, MS-1053, and colloidal sulfur. The effective agents against carnation rust were tsineb, captain, phigon, phtalan, and maneb used prophylactically; phigon and polycarbacin were effective against heterosporiosis. All of these preparations caused no leaf burn and did not depress the growth or the development of plants.

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- 36 -

IGNATOVICH T.N.

IN THE COMMITTEE FOR INVENTIONS AND DISCOVERIES
UNDER THE COUNCIL OF MINISTERS USSR

[Announcement; Moscow, Vestnik Akademii Nauk SSSR, Russian, No 7, July 1973, pp 132-133]

The Committee has registered the following scientific discoveries:

V. P. KAZNACHEV, S. P. SHURIN and P. P. MIKHAYLOVA. "The effect of intercellular distant electromagnetic interactions in a system of two tissue cultures."

Formulation of the discovery: Experimentally established was the previously unknown effect of distant intercellular electromagnetic interactions between two tissue cultures during the action on one of them of factors of biological, chemical or physical nature with characteristic reaction of the other (intact) culture in the form of a "mirror" cytopathic effect, which determines the cell system as a detector of modulation peculiarities of electromagnetic radiation.

Priority of invention: 15 February 1966

Certification No 122. Application No OT-7697

By this discovery the paths of experimental evaluation of the role of quantum effects in biological systems are designated. It can help practice in finding ways of effect on pathological processes by the coordination of noises arising in a photon channel of information transmission.

S. M. BARANOV. "The effect of change of structure and properties of alloys."

Formulation of the discovery: Experimentally established was the previously unknown effect of change of the structure and

JAS 6065

18 Sept. 73

(9)

Properties of alloys based on iron, caused by the pressure of
trace impurities of compounds containing oxygen of the type of
silicon monoxide.

Priority of invention: 7 June 1951
Certificate No 124. Application No OT-1717

Established was the identity of processes taking place
during the crystallization of solutions of mineral salts in the
presence of a surface-active colloidal admixture, and secondary
crystallization of iron-based alloys containing an admixture of
silicon monoxide. The discovered effect permits creating a new
theory connecting the properties of steel and iron-based alloys.
Scientific principles of new technological processes have also
been elaborated which assure, in combination with rational alloy-
ing, obtaining alloys with prescribed properties.

G. A. ADAMOV, V. I. GOL'DENSKY, T. H. IGAROVICH, V. I. TAL'-
ROZ, P. A. YAMPOUSKY, I. M. BARKALOV, A. N. MEYER, and A.
H. KRAYLOV. The effect of formation of polymers in a shock
wave.

Formulation of the discovery: Experimentally established
was the previously unknown effect consisting in the fact that,
as a result of passage of a shock wave through monomer present
in a condensed phase polymers are formed, the characteristics
of which depend on the amplitude of the shock wave.

Priority of invention: 23 June 1964
Certificate No 125. Application No OT-3849

Investigation of this effect intensifies the understand-
ing of processes taking place behind the front of a shock wave
under the specific conditions of instantaneous unilateral im-
pulsion of a substance on the front. It substantially expands
the area of application of shock waves and their technological
use to obtain polymers whose characteristics can be varied by
changing the conditions of effect of those waves.

YE. S. MASHKOVA, V. A. POLJANOV, D. D. ODITSOV, V. G. TEL'KOV-
SKY, and V. H. CHICHEKOV. The effect of anisotropy of ion-elec-
tron emission of single crystals.

Formulation of the discovery: Established was the pre-
viously unknown effect of anisotropy of the ion-electron emis-
sion of single crystals, consisting in reduction of the number
of emitted electrons when the incident ions are directed along
the crystallographic axes of the target.

Acc. Nr:

AP0049942

Abstracting Service:

CHEMICAL ABST. 5-70

Ref. Code:

UR0456

101197m Mechanism of shock-wave polymerization. Yam-
pol'skii, P. A.; Ignatovich, I. N. (Inst. Khim. Fiz. Moscow
USSR). *Khim. i Energ.* 1970, 4(1), 74-6 (Russ). Acrylamide
(I) was polymd. under static and dynamic pressures. I. com-
pressed at room temp. under a static pressure of 80 kilobars did
not polymerize but did under dynamic compression < 30 kilobars.
The yield of polyacrylamide was unaffected by initial temps.
from -90 to 125°. The mechanism of the shock-wave polymn. of
I was explained on the basis of the N. N. Semenov (1960) theory.
CKJR

REEL/FRAME
19801878

Immunology

USSR

UDC 615.371:576.851.71].012.6.011.17.576.858

SALAGOVA, T. A., IGNATOVICH, V. F., and PILLE, E. R., State Institute of Standardization and Control of Medical Biological Preparations imeni Tarasevich, and Institute of Epidemiology and Microbiology imeni Gamaleya, Academy of Medical Sciences USSR, Moscow

"Methods for Detecting Viral Contaminants in Live Rickettsiosis Vaccines Produced in Chick Embryos"

Moscow, Zhurnal Mikrobiologii, Epidemiologii, i Immunobiologii, No 3, 1973, pp 47-51

Abstract: The pathogenicity of rickettsiosis vaccines with respect to viral contaminant test tissues necessitated development of alternative methods for detecting such contaminants during industrial production of the vaccines. Live typhus vaccine, Q fever vaccine, and live tick-borne rickettsiosis vaccine were treated with antibiotics to prevent rickettsial growth, to reduce its pathogenicity an intermediate product in typhus vaccine production was employed, while dry Q fever and tick-borne rickettsiosis vaccines were used as 50 and 10% suspensions in Medium No 199. It was possible to detect the following viral contaminants in these vaccines by applying them to the tissue preparations noted: Chick embryo fibroblasts: Fowl plague, Newcastle disease, infectious 1/2

USSR

SALAGOVA, T. A., et al., Zhurnal Mikrobiologii, Epidemiologii, i Immunobiologii, No 3, 1973, pp 47-51

laryngotracheitis, fowl pox; emryonic chick kidney: Fowl encephalomyelitis, fowl enteroviruses, hen reoviruses, hen adenoviruses, infectious laryngo-tracheitis; chick embryos: hen pox, infectious laryngotracheitis, fowl plague, Newcastle disease, blue comb crest disease; suckling mice: Arboviruses, ornithosis. Detection of infectious bronchitis, Marek's disease, and fowl leukosis presents particular problems, which are described. As a control of these methods the vaccines were applied to the above tissue cultures and human amnion cells artificially infected with fowl pox. It was possible to detect the contaminant by these methods.

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- 16 -

USSR

IGNATOVICH, V. F., Institute of Epidemiology and Microbiology imeni N. P. Gamaleya, Academy of Medical Sciences USSR

"Chronic Infection of Cultures of A₁ Cells With Rickettsia prowazekii"

Moscow, Voprosy Virusologii, No 5, 1971, p 624

Abstract: The possibility of obtaining cultures of A₁ cells chronically infected with Rickettsia prowazekii, vaccinal (E) and virulent Brein strains was demonstrated. Slight fluctuations in replication of the rickettsiae were noted in different stages of passaging the infected cells during the observation period (40-41 and 95 days, respectively). The virulent strain was replicated more intensively than the vaccinal strain.

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USSR

UDC 615.371:576.851.71].015.4:616.981.711-097.5

NIKOL'SKAYA, V. N., IGNATOVICH, V. F., and MOROZOVA, M. Yu., Institute of Epidemiology and Microbiology imeni Gamaleya, USSR Academy of Medical Sciences, Moscow

"A Possibility of Using Serological Methods for Additional Evaluation of the Intensity of Typhus Immunity in Guinea Pigs"

Moscow, Zhurnal Mikrobiologii Epidemiologii i Immunobiologii, No 5, May 71, pp 137-141

Abstract: A vaccination against typhus which produces clinical immunity does not necessarily produce serological immunity. In this study performed on a large number of guinea pigs, it was shown that some vaccines produce a high titer of complement fixing antibodies which -- upon subsequent inoculation with typhus bacteria -- either falls or does not change, or rises less than two-fold. Other vaccines, though they also confer clinical immunity, give rise to a small antibody titer. After subsequent infection with the typhus pathogen, the titer increases more than four-fold, which indicates that rickettsiae -- though they do not produce clinical signs of disease -- proliferate in the body until the concentration of antibodies rises to an effective

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USSR

NIKOL'SKAYA, V. N., et al, Zhurnal Mikrobiologii Epidemiologii i Immunologii, No 5, May 71, pp 137-141

level. It is concluded that a double determination of antibody titer in experimental animals -- once after vaccination and a second time after infection -- is a good method of evaluating the strength of immunity induced by a typhus vaccine.

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1/2 013 UNCLASSIFIED PROCESSING DATE--18SEP70
TITLE--EXPERIMENTAL PREREQUISITES FOR SUBSTANTIATION OF THE POSSIBLE ROLE
OF TICKS IN EPIDEMIOLOGY OF TYPHUS (EXANTHEMATIC) -U-
AUTHOR-(02)-IGNATOVICH, V.F., GROKHOVSKAYA, I.M.

COUNTRY OF INFO--USSR

SOURCE--VESTNIK AKADEMII MEDITSINSKIKH NAUK SSSR, VOL 25, NO 2, 1970, PP
22-30
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--TICK, EPIDEMIC TYPHUS, GUINEA PIG, RICKETTSIA PROWAZEKI

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1986/1845

STEP NO--UR/0248/70/025/002/0022/0030

CIRC ACCESSION NO--AP0103593

UNCLASSIFIED

2/2 013

UNCLASSIFIED

PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0103593

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AS A CONTINUATION OF PRIOR INVESTIGATIONS (I.M. GROKHOVSKAYA ET AL., 1966, 1967, 1968; V.F. IGNATOVICH ET AL., 1968A, 1968B) IN THE PRESENT WORK WE INVESTIGATED THE INCIDENCE OF TICK INFECTION ON INFECTED GUINEA PIGS, THE EFFECT OF INFECTIVE DOSAGE ON INFECTIVITY OF TICKS, THE POSSIBILITY OF TRANSPHASE AND TRANSOVARIAN TRANSMISSION OF TYPHUS PATHOGEN, TIME OF RETENTION OF RICKETTSIAE IN THE TICK ORGANISM. IN ADDITION, A STUDY WAS MADE UNDER EXPERIMENTAL CONDITIONS OF THE POSSIBLE ROUTES OF TRANSMISSION OF R. PROWAZEKII BY INFECTED TICKS TO WARM BLOOD ANIMALS AND INTO THE ENVIRONMENT.

UNCLASSIFIED

USSR

UDC 547.245'118.07

KAMENSKIY, A. B., OGAYDZHAN, E. P., PONOMAREV, V. V., GOLUBTSOB, S. A.,
and IGNATOVICH, YU. A.

"A Method of Making Organyl Halosilyl Phosphines"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki,
No 22, Aug 72, Author's Certificate No 345167, Div C, filed 31 Jul 70,
published 14 Jul 72, p 97

Translation: This Author's Certificate introduces a method of making organyl
halyl phosphines by reacting hydrogen-containing halosilanes with chloro-
phosphines in an organic solvent with subsequent isolation of the goal
product by conventional methods. As a distinguishing feature of the patent,
the process is simplified by using organyl chlorophosphines as the chloro-
phosphines, and carrying out the process in the presence of a hydrogen
chloride acceptor such as triethylamine.

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USSR

UDC 621.791.725+669.295+669.14

IGNATOVSKAYA, G. S., Engineer, and KOMAROV, M. A., Candidate of Engineering Sciences

"Welding Beryllium With Titanium and Steel"

Moscow, Svarochnoye Proizvodstvo, No 1, Jan 73, pp 17-18

Abstract: The possibility of welding beryllium with OT4 titanium alloy and 1Kh18N10T stainless steel was investigated. Rods of distilled beryllium (coarseness of initial powder was 355 microns) were used. The effect of the intermediate strip material was studied along with welding temperature and time and their effect on weld joint strength. Tests on the direct welding of beryllium to steel and titanium did not give good results. Therefore a material was selected which had a region of solid solutions with beryllium at high temperatures. The best material was found to be silver in comparison with nickel and copper. Using a silver intermediate strip, welds with 1Kh18N10T and OT4 were vacuum tight and had a strength of more than 30 kgf/mm². A welding temperature of 750°C was the best temperature to yield the highest strengths: 35.0-39.1 kgf/mm² and 37.2-42.2 kgf/mm² for 1Kh18N10T and OT4, respectively. Cryogenic tests showed that weld joint strength at -196 and -70°C was almost the same as at room temperature.

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USSR

IGNATOVSKAYA, G. S., and KOMAROV, M. A., Svarochnoye Proizvodstvo, No 1, Jan 73, pp 17-18

The maximum operating temperature for Be+1Kh18N10T and Be+OT4 welds was found to be 300°C. Four figures, 4 bibliographic references.

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USSR

UDC 615.217.32:547.333:
4.015.11

KHARKEVICH, D. A., SKOLDINOV, A. P., and IBADOVA, D. M., Laboratory of Nervous System Pharmacology and the Laboratory of Organic Synthesis, Institute of Pharmacology, Academy of Medical Sciences USSR, and the Department of Pharmacology, Faculties of Medicine and Public Health, 1st Moscow Medical Institute imeni I. M. Sechenova, Moscow

"The Effects of Adamantyl Radicals on the Mechanism of Cholinergic Action of Mono-Quaternary Ammonium Compounds"

Moscow, Farmakologiya i Toksikologiya, Vol 36, No 2, 1973, pp 201-205

Abstract: It has been demonstrated that adamantyl radical may alter the properties of curariform drugs, when substituted on the quaternary nitrogen atom. Present studies were performed to test the universality of this phenomenon by preparation of 1-adamantyl analogs of tetramethyl ammonium, choline, and acetylcholine, and testing them biologically. The studies were conducted on pigeons and chicks that had been intravenously injected with the appropriate compound and the nature of resultant paralysis was noted, on the rectus abdominis muscles of frogs to determine contractility, and on cats under anesthesia (intravenous chloralose, 60 mg/kg, and urethane, 400 mg/kg) to determine transmission across the myoneural junction of impulses from the sciatic nerve to the gastrocnemius muscle. The substituted compounds were
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USSR

KHARKEVICH, D. A., et al., *Farmakologiya i Toksikologiya*, Vol 36, No 2, 1973, pp 201-205

found to induce flaccid rather than spastic paralysis in the chicks and pigeons, did not cause contraction of the rectus abdominis muscles, or fasciculation of the gastrocnemius. Similar results were obtained with l-adamantyl esters of acetic, benzoic, and cinnamic acids. The data were taken to indicate that introduction of l-adamantyl not only changes the respective compounds from depolarizing to nondepolarizing compounds, but also through its lipophilic property affects the attachment of the compounds on the subsynaptic membrane and subsequent hydrophobic interaction with the choline receptors.

2/2

USSR

UDC 632.952:582.28

IBRAGIMOV, G. R., and GARAYEV, P. S., Azerbaidzhan Scientific Research
Institute of Geography

"The Effect of Fungicides on the Wheat Stalk Mildew Infection"

Moscow, Khimiya v Sel'skom Khozyaistve, No 4, 1973, pp 45-46

Abstract: In laboratory experiments the most effective agent among those investigated (udoncor, benlat, preparation 868 and preparation 1290) was the preparation 868 (analat) used in double application and the preparation 1290 sprayed three times, 10 days apart. In field trials the preparation 868 again proved to be superior. Therefore, it has been recommended to spray wheat twice with this agent 10 days apart, any time between the 30 May and 10 July.

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USSR

UDC 621.373.826

IGNATAVICHUS, M. V., PISKARSKAS, A. S., and STABINIS, A. YU.

"Use of Some A^{II}B^{VI} Compounds for Controlling the Pulses of Optical Lasers"

V. sb. Probl. fiz. soyedineniy A^{II}B^{VI}. T.I (Problems of the Physics of Compounds A^{II}B^{VI}. Vol.I — collection of works), Vil'nyus, 1972, pp 121-125 (from RZh-Radio-tekhnika, No 11, Nov 72, Abstract No 11 D138)

Translation: A detailed theoretical study is conducted on the effect of 2-photon absorption within a laser resonator on the characteristics of light pulses during variation of the laser parameters within broad limits. Instantaneous modulation of resonator quality is proposed (since it takes place during use of directed, phototropic filters). Calculations show that variation in the thickness of the semiconductor absorber makes it possible to change the duration of the light pulses within very broad limits. It is shown that it is necessary to use semiconductors with a large value of the 2-photon absorption coefficient and a small linear absorption value in order to obtain light pulses with large peak power densities with possibly longer duration. A.K.

1/1

USSR

IGNATENKO, P. P.

"Solution of One Transport Problem with a Discontinuous Goal Function"

Sistemotekhnika [Systems Engineering -- Collection of Works], Kiev, 1971,
pp 138-146 (Translated from Referativnyy Zhurnal, Kibernetika, No 1, 1973,
Abstract No 1 V710).

Translation: A generalization of the transport problem with fixed pre-
payments.

1/1

USSR

UDC 666.321:622.765

KUZOVLEV, A. K., Candidate of Technical Sciences, IGNATENKOVA, N. I., Engineer, MAL'TSEVA, I. I., Engineer, and BOGDANOVA, Ye. D., Engineer, Central Asian Scientific Research Institute of Geology and Mineral Raw Material

"Experience in Centrifugal Floating Classification of Angrensk Kaolins in Hydraulic Turbocyclone"

Moscow, Steklo i Keramika, No 2, 1973, pp 25-26

Abstract: Experiments of flotation of kaolins were conducted on TTs-1D (TVN-75) turbocyclone and GTN-200 laboratory hydraulic turbocyclone by the Khimgeolnerud expedition at the Angrensk Research Station, in order to investigate a possible increase of the effectiveness of flotation of secondary kaolins. The centrifugal floating classification on the GTN-200 turbocyclone revealed that a high-quality kaolin concentrate with up to 32-34 % alumina content can be produced. This kaolin does not get worse with increasing density of the processed pulp and it is practically not inferior that the kaolin concentrated on NOGSh-325 scroll centrifuge. Three tables, one bibliographic reference.

1/1

USSR

UDC 621.396.6.019.3

IGNATOV, V. A.

"Optimization of the Quality of Radioelectronic Equipment by an Economic Criterion"

Sb. nauch. tr. Kiev. in-t inzh. grazhd. aviatsii (Collected Scientific Works of Kiev Institute of Civil Aviation Engineering), 1970, vyp. 6, pp 78-82
(from RZh-Radiotekhnika, No 5, May 72, Abstract No 5V297)

Translation: A new approach is proposed for optimizing the synthesis of radio-electronic equipment based on the noncanonical singular representation of technical-economic processes. The probability characteristics of the technical-economic indexes are expressed in terms of elementary random variables: the initial values and the rates at which the output parameters become worse, the duration of various types of technical servicing, and so on. The bibliography has 4 entries.

1/1

- 76 -

USSR

UDC 576.851.71.06.083.3.095

IGNATOVICH, V. F., Institute of Epidemiology and Microbiology imeni Gamaleya,
Academy of Medical Sciences USSR

"Culturing Properties of Vaccine (E) and Virulent (Breinl) Rickettsia
Prowazeki Strains Cultured in Cell Systems"

Moscow, Zhurnal Mikrobiologii, Epidemiologii, i Immunobiologii, No 2,
1973, p 131

Abstract: Growth of vaccine (E) and virulent (Breinl) Rickettsia prowazeki strains was compared through several passages in human amnion cells and trypsinized chick embryo fibroblasts. Both strains reproduced for up to 8 passages in human amnion cells, but microscopic counts and antigen titers were higher for E strain. Growth was also more vigorous with E than with Breinl strain in fibroblast cultures but depended on the age at which the cultures were infected: Virulent bacteria could not be maintained longer than 4-5 passages in 9-11 day cultures but persisted for up to 17 passages in 8 day cultures. In this case there was little microscopic evidence of Rickettsia and no antigen was detected, but guinea pigs did produce high antibody titers when infected with the cultures. Such "unapparent" persistence requires further study.

1/1

USSR

UDC 632.95

IGNAT'YEV, A. D.

"Basis for the Method of Analyzing Residues of Chlorocholine Chloride in Food Crops"

Tr. 2-go Vses. soveshch. po issled. ostatkov pestitsidov i profilakt. zasryazneniya imi produktov pitaniya, kornov i vnesh. sredy (Works of the Second All-Union Conference on the Investigation of Pesticide Residues and Preventive Contamination of Food Products, Fodder and Environment), Tallin, 1971, pp 345-347 (from RZh-Khimiya, No 12, Jun 72, Abstract No 12N499)

Translation: In order to analyze residues of chlorocholine chloride (I), it is necessary to subject the sample slowly to analysis or quickly freeze it, dry it or add CCl_3COOH (No later than after 24 hours). The representative size of sample for grain is $\leq 0.1-0.5$ kg; for green mass it is 0.5-2.0 kg. I is extracted from the greens and vegetables with water. The most satisfactory results of analyzing I are obtained by the method of thin-layer chromatography on a layer of silica gel with elution with a mixture of $\text{EtOH} + \text{H}_2\text{O} + \text{HCOOH}$ (12:7:1).

1/1

USSR

UDC 631.547.04

PRUSAKOVA, L. D., IGNAT'YEV, A. D., and GORSHKOV, A. I., Institute of Plant Physiology, Academy of Sciences USSR, and First Moscow Medical Institute

"Residues of Chlorocholine Chloride in Wheat and Their Toxicological Significance"

Moscow, Khimiya v Sel'skom Khozyaystve, Vol 9, No 6, 1971, pp 56-58

Abstract: The authors made a long-term sanitary and toxicological study to determine residues of chlorocholine chloride (CCC) in treated wheat crops and to establish their safety limit for human and animal health. In 1967-1969 field tests, CCC residues were analyzed in the grain and straw of two varieties of winter wheat (wheat-wheat grass hybrid 186 and Mironovskaya 808). It was found that there are no residues of CCC in the grain of wheat treated with doses up to 4 kg/ha, but that in the case of combined treatment with CCC and 2,4-D there are slight residues approximating the limits detected by chemical analysis, including a method as sensitive as thin layer chromatography. The 2,4-D apparently delays somewhat the breakdown of CCC in plants, thus promoting the appearance of insignificant residues. Recommendations for the use of CCC in agriculture must be strictly observed so as to obtain the maximum production effect and at the same time assure the absence of harmful impurities in treated crops.

1/1

IGNATIYEV A. I.

med

82

J-9979

CHAP. 13. 14 THE PHYSIOLOGICAL STATE OF THE BODY
AMONG THE CLIMB PERSONNEL OF THE
MILITARY TRANSPORT AVIATION (pp 59-60)

by Lieutenant Colonel Medical Service A. I. Ignatyev.

Candidate of Medical Sciences.

Major Medical Service A. I. Ignatyev.

Lieutenant Colonel Medical Service A. I. Ignatyev.

Lieutenant Colonel Medical Service A. I. Ignatyev.

the Major Medical Service A. I. Ignatyev.

The modern technical equipment of the VVA (Voenno-transportnaya aviatsiya, military transport aviation) has considerably heightened its tactical possibilities. Naturally, this has changed the conditions of its professional activities and led to stricter requirements concerning the working capability of the personnel of the flight crews. Of late, works working published dedicated to the medical study of the working conditions and way of life of VVA flight personnel. Thus, as a result of clinical-psychological and hygienic studies of VVA flight activities, a number of authors have provided medical descriptions and described the specific characteristics of long-distance flights (G. I. Kurvich, Ye. V. Kontarov, V. A. Vozorov, V. L. Varlanchuk, L. A. Tsvetnitskiy, V. I. Kashevskiy, G. I. Iokhmanin, 1969, and others).

The object of our study was the influence of average-length flights on the body of the flight personnel. In this effect, we studied 32 members of flight crews who displayed no deviations in their state of health. They were in the 20-30 years age group with two to 18 years of flight experience. The studies were made before the flights and in an interval after landing (in the spring-summer periods). The flights took place in simple weather conditions at a 3,000-3,500 meters altitude. Take-off and landing took place at the base airfield. The influence of the flights on the state of the body was evaluated through studies of the nervous and cardiovascular systems and through laboratory data.

With a view to evaluating the dynamics of nervous processes (capability to concentrate and divide the attention), we used the intermittent flashing of numbers test. We determined a steady increase in the number of errors after flights, averaging 0.52 compared with the starting data ($\sigma = 0.02$; χ^2 initial = 1.32). Henceforth the average value of starting data will be marked by M; the overall time was increased insignificantly (by three seconds). The attention span was determined with the help of the correctional method involving the use of Landolt rings. The number of

with data, *The Medical Journal* 1120
Aug 71

Radar

USSR

UDC: 621.396.6:629.12

FRIDMAN, V. Ts., IGNAT'YEV, A. N.

"Analysis of Factors Which Determine the 'Dead Zone' of a Navigational Radar, and Ways of Reducing it"

Tr. TsNII Mor. flota (Works of the Central Scientific Research Institute of the Maritime Fleet), 1970, vyp. 124, pp 25-39 (from RZh-Radiotekhnika, No 12, Dec 70, Abstract No 12G109)

Translation: The authors discuss the electrical and structural characteristics of individual devices in marine navigational radar stations which affect the size of the "dead zone." The decisive factors are: the power of the reflected signal, which depends on the height at which the antenna is set, the radiation pattern and the angle of inclination in the vertical plane; the duration of the probing pulse; pickup from the video pulse of the transmitter modulator; the length of the waveguide channel; the effect of the reception device which causes elongation of the probing pulse; signal attenuation caused by the discharger and antenna switch in the SHF head; image scale and spot diameter on the CRT screen; instability of the synchronization system. Recommendations are given on weakening these factors while retaining the basic radar characteristics. A. K.

1/1

USSR

UDC: 621.391.8:519.27

IGNAT'YEV, A. N., OPOVKIN, V. I.

~~"Construction of a Physically Realizable Autocorrelation Function"~~
"Construction of a Physically Realizable Autocorrelation Function"

Tr. Kazan. aviats. in-ta (Works of the Kazan' Aviation Institute), 1970, vyp. 122, pp 9-17 (from RZh-Radiotekhnika, No 12, Dec 70, Abstract No 12A60)

Translation: The authors examine the problem of constructing an autocorrelation function with respect to a function (arbitrarily given on a finite interval) which in the general case is not realizable as an autocorrelation function. The power spectrum of the signal corresponding to the resultant function is determined, and from this spectrum, the spectrum of the signal being sought is found. One illustration, bibliography of six titles. N. S.

1/1

- 23 -

1/2 023 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--BATHING IN BASINS WITH SEA WATER IN THE TREATMENT OF PATIENTS WITH
INITIAL FORMS OF CEREBRAL ATHEROSCLEROSIS -U-
AUTHOR--IGNATYEV, A.N.

COUNTRY OF INFO--USSR

SOURCE--VRACHEBNOYE DELG. 1970, NR 6, PP 27-29

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--BRAIN, ATHEROSCLEROSIS, SEA WATER, THERAPEUTICS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3001/2005

STEP NO--UR/C475/70/000/006/0027/0029

CIRC ACCESSION NO--AP0127400

UNCLASSIFIED

2/2 023

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0127400

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A STUDY OF 66 PATIENTS INDICATES THAT INCLUSION OF BATHING IN INDOOR BASINS WITH SEA WATER IN THE COMPLEX OF HEALTH RESORT MEASURES INCREASES THE EFFICIENCY OF TREATMENT OF PATIENTS WITH INITIAL FORMS OF CEREBRAL ATHEROSCLEROSIS ASSOCIATED WITH NEURASTHENIC STATES. FACILITY: YALTINSKIY SANATORITY KRASNOZNAMENNOGO CHERNOMORSKOGO FLOTA YALTINSKOGO INSTITUTA FIZICHESKIKH METODOV LECHENIYA I MEDITSINSKOY KLIMATOLOGII IMENI I. M. SECHENOVA KAND. MED. NAUK V. A. YEZHOVA.

UNCLASSIFIED

USSR

UDC 612.821:612.819:612.825+612.822.3

IGNAT'YEV, D. A., KARNUP, S. B., MURADOVA, I. O. and ZHADIN, M. N.,
Institute of Biological Physics, USSR Academy of Sciences, Pushchino-na-Oke

"On the Interaction of Cortical Induced Potentials on the Elaboration of a
Conditioned Reflex"

Moscow, Doklady Akademii Nauk SSSR, Vol 213, No 2, 1973, pp 490-491

Abstract: An attempt was made to develop concrete characteristics stipulating similarity between induced potentials in the cerebral visual and motor cortex of rabbits registered during the early stages of defensive conditioned reflex elaboration. The coefficient of cross-correlation, presentation of potentials as a superposition of transient oscillations and factor analysis were used. It was found that the coefficient of cross-correlation increased, reached a maximum and then fell with a concomitant decrease in motor reactions. This is shown to be due to the convergence of frequency and phase of responses in the theta region. These results are said to show that Livanov's concepts on the special role of theta-rhythm synchronization in stimulation transmission may be extended to cortical induced potentials.

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- 70 -

1/2 015 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--VIBRATIONAL SPECTRA AND CHEMICAL STRUCTURE OF COMPLEX IONS AND
MOLECULES OF THE X SUB3 D SUB9 TYPE -U-
AUTHOR-(02)-IGNATYEV, I.S., LAZAREV, A.N.

COUNTRY OF INFO--USSR

SOURCE--DOKL. AKAD. NAUK SSSR 1970, 191(3), 596-9

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--COMPLEX COMPOUND, ION, SULFUR, CHLORINE, VIBRATION SPECTRUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--2000/0596

STEP NO--UR/0020/70/191/003/0596/0599

CIRC ACCESSION NO--AT0124283

UNCLASSIFIED

2/2 015

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AT0124283

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CYCLIC MOLS. X SUB3 O SUB9 FORMED BY CONDENSATION OF 3 TETRAHEDRA XO SUB4 INTO A CONFIGURATION EACH WITH 2 COMMON AND 2 FREE O ATOMS ARE KNOWN FOR SI, P, AND S. BASED ON THEIR KNOWN CONFIGURATIONS, AT. DISTANCES, AND ESTD. FORCE CONSTS. OF THE X O BONDS, THE VIBRATIONAL FREQUENCIES WERE CALCD. AND COMPARED WITH THE EXPTL. DETD. VALUES FOR SI SUB3 O SUB9 AND P SUB3 O SUB9. THE OBTAINED FORCE CONSTS. INDICATE FURTHER THAT, FOR SI AND P OXIDES, THE CONDENSATION INTO THE CYCLIC X SUB3 O SUB9 CONFIGURATION IS MORE PROBABLE WHILE FOR S AND CL THE NONCONDENSED XO SUB4 FORM IS MORE STABLE. FACILITY: INST. KHIM. SILIKAT. IM. GREBENSHCHIKOVA, LENINGRAD, USSR.

UNCLASSIFIED

USSR

UDC 621.125-529:629.123.56-181.2

VOYTETSKIY, V. V., GOL'DBERG, M. E., IGNAT'YEV, A. V., and SHRAYER, A. I.

"Programmed Control of a Supertanker Steam-Turbine Plant Fitted With a Variable-Pitch Propeller"

Leningrad, Sudostroyeniye, No 11, Nov 72, pp 26-28

Abstract: On the basis of research conducted with regard to the steam-turbine unit of a tanker of the "Krym" type, a report is given on the particular features of the programmed control of a turbogear unit with a variable-pitch propeller in application to a supertanker, and recommendations are made concerning the structure of the automated remote control of the automated power unit. 3 figures.

1/1

- 33 -

IGNAT'YEV, M.B.

Manipulator

IGNAT'YEV

1. REPORTING DATA		1. Report No.	2. Report No.	3. Report No.
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ROBOT-MANIPULATOR CONTROL ALGORITHMS

JPRS 59717
6 August 1973

Translation of Russian-language book by M. B. Ignat'yev, P. M. Kulikov, and A. M. Pokrovskiy: Algoritmy upravleniya robotami-Manipulyatorami, 1972, Izdatel'stvo Mashinostroyeniya, Leningrad, 248 pages.

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- a -

[1 - USSR - M]

3

UDC 519.93:152.8

ABSTRACT

In this book a study was made of the problems of automating manual and auxiliary operations by using computer-controlled robot-manipulation. The methods of equipping the grab tong and the articulations of the manipulator with data units are analyzed, and the control algorithms for the manipulators are described for the performance of various manual operations. The input data for the computer are the generalized orders of the human operator and information about the environment. The algorithms for controlling the displacement of the manipulators installed on a mobile wheeled and stepping-type chassis are given. The hierarchical level structure of the control of the robots is analyzed and the problem-oriented algorithmic languages for programming the behavior of such robot-manipulators in complicated situations, the operative space method and the decision-making algorithms are described.

The book is designed for scientific and engineering-technical workers specializing in the field of complex automation and in the area of application of computers to control complex systems. It can be used by students in the advanced courses at the technical institutions of higher learning.

UDC 8.74

USSR

IGNAT'YEV, M. B., FLEYSHMAN, B. S., KHOROSHEVSKIY, V. G., SHCHERBAKOV, O. V.

"Reliability of Homogeneous Computation Systems"

V sb. Vychisl. sistemy (Computation Systems--collection of works), vyp. 48, Novosibirsk, 1971, pp 16-47 (from RZh-Kibernetika, No 12, Dec 72, Abstract No 12V411)

Translation: A study was made of the problems of reliability of homogeneous all-purpose computation systems. The monitoring and correction procedures for the computation processes are described. Definitions of systems with structural redundancy and long-lived systems are presented. These classes of systems include the known systems of reliability theory. The reliability indexes of the homogeneous all-purpose computation systems are introduced. A study was made of the approaches when estimating the reliability of the elementary computer of the homogeneous all-purpose computation systems. Stochastic models of these systems are constructed which lead to simple formulas for the reliability indexes. It is noted that the numerical results obtained by these formulas coincide with a known degree of accuracy with the results of the more exact but more tedious calculations. Approximate methods of calculating the indexes of the homogeneous all-purpose computation systems are also investigated. Asymptotic estimates of the reliability indexes of the systems are presented for

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USSR

IGNAT'YEV, M. B., et al., Vychisl. sistemy, vyp. 48, Novosibirsk, 1971, pp 16-47

$N \rightarrow \infty$. Divisions of the system into subsystems which are optimal from the point of view of reliability are found. The conditions are presented (logarithmic growth with time of the number of elementary computers) insuring reliability of the system as high as one might like. It is established that a sufficiently high reliability of such systems can be achieved, in particular, if their program organization is either by the principle of systems with structural redundancy or by the principle of long-lived systems. The proportion of the computers comprising the structural redundancy does not exceed a tenth part of the number of elementary computers in the system. The investigated principles have the advantage that they do not permit idle time of the elementary computers which are in a state of good repair. The methods of solving the monitoring and diagnostic problem for failures in homogeneous computation systems are noted. Calculation formulas were obtained for the technical-economic indexes. The problem of the optimal number m^* of devices in the repair system is solved. It was found that m^* comprises an insignificant portion of the number N of computers in the system; in addition, the ratio $m^*/N \rightarrow 0$ when $N \rightarrow \infty$. The results are illustrated by examples of homogeneous all-purpose computation systems. It is noted that highly efficient and highly reliable systems can be constructed on the existing physical-technological base. From the point of view of reliability,

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USSR

IGNAT'YEV, M. B., et al., Vychisl. sistemy, vyp. 48, Novosibirsk, 1971, pp 16-47

efficiency and cost homogeneous computation systems are a prospective area in computer engineering. The bibliography has 25 entries.

3/3

Mechanical and Optical

USSR

UDC: 621.80:681.142.35

IGNAT'YEV, M. B., KULAKOV, F. M., and POKROVSKIY, A. M.

"Prospects of Designing and Using Manipulators Controlled from Computers"

Moscow, Mekhanika mashin, No. 27-28, 1971, pp 45-55

Abstract: The manipulators of the title refer particularly to automatic devices, with or without a human operator, for undersea explorations, where the use of a human being is particularly dangerous if not impossible. The design of such manipulators is connected with the realization of unusually complex control algorithms which can be performed only by computers. The basic factors determining the technical-economic efficiency of computer-controlled or man-controlled manipulators are considered, under the assumption that the manipulator operates in a particular medium of specified variability depending on changing conditions. Such psychological factors as exhaustibility, error proneness, and limited working accuracy, are not taken into account. The basic stages in the process of automatic manipulator design are discussed, and the block dia-

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USSR

IGNAT'YEV, M. B., et al., Mekhanika mashin, No 27-28, 1971, pp 45-55

grams of two program- and computer-controlled manipulators shown. Also considered are the linguistic approach to the synthesis of control programs, and the modeling of manipulators with program control. Many of the quoted sources are American.

2/2

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USSR

UDC 519.2:62-50

IGNAT'YEV, M. A., MOSKATOV, G. K.

"On the Reliability of a Class of Self-Organizing Systems With Redundancy"

V sb. 4-y Simpozium po probl. izbytochn. v informatsion. sistemakh. Dokl.
Ch. 1 (4th Symposium on Problems of Redundancy in Data Processing Systems.
Papers. Part 1 -- Collection of Works), Leningrad, 1970, pp 273-283 (from
RZh-Matematika, No 10, Oct 70, Abstract No 10V170)

Translation: A self-organizing system constructed by the excess variable method is considered; the structure of the input flow relative to control conditions is analyzed; the random process of the development of states in the system is considered as semi-Markov, and expressions are found for the probability of the system staying in a working state in both the presence and absence of failures in the control unit. Authors abstract.

1/1

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USSR

UDC 519.2:62-50

IGNAT'YEV, M. B.

"On the Stability of Redundant Systems"

V sb. 4-y Simpozium po probl. izbytochn. v informatsion. sistemakh. Dokl.
Ch. 1 (4th Symposium on Problems of Redundancy in Data Processing Systems.
Papers. Part 1 -- Collection of Works), Leningrad, 1970, pp 292-299 (from
RZh-Matematika, No 10, Oct 70, Abstract No 10V169)

Translation: Redundant systems constructed by the excess variable method are
considered. The possibility of constructing such systems which are stable
under constantly acting small and average random perturbations is investigated.
Authors abstract.

1/1

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USSR

UDC: 8.74

IGNATIYEV, M. B., KASPAROV, G. A.

"Integration of Differential Equations Using Nonideal Analog Integrators"

Tr. Leningr. In-t Aviats. Priborostr. [Works of Leningrad Institute of Aviation Instrument Building], 1972, No 74, pp 134-141 (Translated from Referativnyy Zhurnal Kibernetika, No 11, 1972, Abstract No 11V550, by the authors)

Translation: A method is suggested for programming differential equations, considering the undesirable negative feedback used in actual analog integrators, based on the introduction of an extra number of variables to the initial equation. It is shown that for linear problems, in addition to increasing the accuracy of modeling, this method allows homogeneous decision structures to be used, in which it is simple to perform checking by a priori known final connections.

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USSR

UDC: 8.74

ARISTOVA, M. V., IGNAT'YEV, M. V.

"Development of an Algorithmic, Problem-oriented Language for the Control of Manipulators"

Tr. Leningr. In-t Aviats. Priborostr. [Works of Leningrad Institute of Aviation Instrument Building], 1972, No 74, pp 125-133 (Translated from Referativnyy Zhurnal Kibernetika, No 11, 1972, Abstract No 11V606, by the authors)

Translation: Several approaches are discussed to the control of complex information systems such as robot manipulators. The advantages and disadvantages of the information-logical and algorithmic problem-oriented approaches are discussed. An initial version of a problem-oriented language is suggested which, the authors feel, can serve as the core for a universal manipulator-control language. The syntax and semantics of the language suggested are described. Certain particular types of tasks for manipulators are presented in this language.

1/2 014 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--LIMITATION OF TUNNEL CURRENT IN METAL-DIELECTRIC-BISMUTH ANTIMONIDE
JUNCTIONS BY CENTRES LOCALIZED NEAR THE INTERFACE BETWEEN THE DIELECTRIC
AUTHOR--(02)--GALKIN, A.A., IGNATYEV, O.M.
COUNTRY OF INFO--USSR
SOURCE--UKRAIN. FIZ. ZHUR., MAR. 1970, 15, (3), 438-440
DATE PUBLISHED-----70
SUBJECT AREAS--ELECTRONICS AND ELECTRICAL ENGR., PHYSICS
TOPIC TAGS--TUNNEL CURRENT, ALLOY PN JUNCTION, BISMUTH CONTAINING ALLOY,
ANTIMONIDE, DIELECTRIC PROPERTY
CONTRL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3003/0201 STEP NO--UR/0185/70/015/000/0438/0440
CIRC ACCESSION NO--AP0129457
UNCLASSIFIED

2/2 014

UNCLASSIFIED

PROCESSING DATE--J00CT70

CIRC ACCESSION NO--AP0129457

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE MECHANISMS GIVING RISE TO THE PECULIAR SHAPE OF THE TUNNEL CURRENT CHARACTERISTIC OF ME DIELECTRIC BI SUB 1-X SB SUBX JUNCTIONS (E.G. AL PER AL SUB2 O SUB3-BI SUB1-X SB SUBX) ARE DISCUSSED. THE SHAPE OF THE CHARACTERISTIC IS DETERMINED BY THE PRESENCE OF FREE BI ATOMS IN THE UPPER ELECTRODE; THESE CREATE LOCAL CAPTURE (TRAPPING) CENTRES IN THE SURFACE LAYER OF THE DIELECTRIC, AND IONIZATION OF THESE LEADS TO THE LIMITATION OF THE TUNNEL CURRENT. THIS EFFECT IS ACCORDINGLY MODIFIED WHEN THE PROPORTION OF SB IN THE BI-SB ALLOY IS INCREASED.

UNCLASSIFIED

1/2 014 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--CONDITIONS FOR THE EXISTENCE OF SODIUM CALCIUM SILICATE HYDRATE IN
ALKALINE SOLUTIONS -U-
AUTHOR-(02)-GORYACHEV, A.A., IGNATYEV, O.S. I
COUNTRY OF INFO--USSR
SOURCE--ZH. PRIKL. KHIM. (LENINGRAD) 1970, 43(5), 999-1002
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--CRYSTALLIZATION, CALCIUM OXIDE, SODIUM OXIDE, SILICATE, METAL
COMPLEX COMPOUND, ALUMINUM COMPOUND
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3004/0937 STEP NO--UR/0080/70/043/005/0999/1002
CIRC ACCESSION NO--AP0131522
UNCLASSIFIED

2/2 014

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0131522

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CRYSTN. REGION OF NA SUB2
O.2CAO.2SIO SUB2 .H SUB2 O (I) OVER A WIDE TEMP. RANGE (150-300DEGREES)
AND THE NAOH CONC. RANGE (150-400 G-L.) WAS DETD. THE DECOMP. OF I ON
PROLONGED CONTACT WITH THE ALUMINATE SOLN. IS EXPLAINED BY THE FORMATION
OF ALUMINOSILICATE COMPLEXES IN THE LAYER NEXT TO THE CRYSTALS. THESE
COMPLEXES ARE TRANSPORTERS OF SI.

UNCLASSIFIED

USSR

UDC 537.591.5

VERNOV, S. N., GORCHAKOV, YE. V., IGNAT'YEV, P. P., and GALACH'YEV, N. G.

"Variations in Fluxes of Charged Particles of Various Energies According to AIS Data"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol 35, No 12, Dec 71, pp 2418-2422

Abstract: The article considers data on variations in the fluxes of charged particles of various energies, recorded on the Venus-2,3,4,6 and Zond-3 automatic interplanetary stations. The flight of Venus-2 and 3 and Zond-3 gave information for 1965; the Venus-4 flight, for 1967; and the Venus-6 flight, for 1969. Data on protons with $E = 1-5$ Mev and $E > 30$ Mev are mainly used. The data on low-energy protons were obtained by means of fine semiconductor detectors which recorded only protons and multiply charged particles but were insensitive to electrons. The protons with $E > 30$ Mev were measured by means of a gas-discharge counter. It is shown that for short (less than two days) and long (more than several days) variations there is an increase in low-energy proton flux during a decrease in the galactic cosmic-ray intensity. A

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USSR -

VERNOV, S. N., et al., Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol 35, No 12, Dec 71, pp 2418-2422

more careful study of the relation between these phenomena requires that galactic cosmic rays be recorded by a detector with a high energy threshold value, which, for all practical purposes, would not record solar protons against a background of galactic cosmic rays.

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- 96 -

USSR
Engineering
Aeronautical and Space

USSR

UDC 629.78.015:533.6.015.04

IGNAT'YEV, S. G., LIFSHITS, Yu. B.

"Toward a Theory of Sonic Flow Over a Profile"

Uch. zap. Tsentr. aerogidrodinam. in-ta (Scientific Notes of the Central Aerohydrodynamic Institute), 1972, Vol. 3, No. 4, pp 9-13 (from RZh-41. Raketostroyeniye, No 11, Nov 72, Abstract No 11.41.101)

Translation: A previously given empirical formula relating pressure with the local incidence angle at the tail section of a profile in a flow that is sonic at infinity is derived. The problem of the optimal shape of the tail of the profile is solved with the aid of this formula. 1 ill., 6 ref. Resume.

1/1

USSR

UDC: 621.376.5(088.8)

~~IGNAT'YEV, S. A.~~, ZHUKOV, S. A.

"A Pulse Modulator"

USSR Author's Certificate No 264448, filed 5 Jul 68, published 12 Jun 70
(from RZh-Radiotekhnika, No 11, Nov 70, Abstract No 11D464 P)

Translation: This Author's Certificate introduces a pulse modulator which contains a high-voltage DC supply with charging choke and isolating diode, a commutator based on a power thyristor, an accumulator in the form of an artificial line, and a load. To increase the steepness of the leading edge of the shaped pulse and reduce commutation interference, the modulator is equipped with an additional low-power thyristor which is connected through a limiting resistor in parallel with the above-mentioned power thyristor. Two illustrations. V. P.

1/1

USSR

UDC: 621.376.5(088.8)

~~IGNAT'YEV, S. S.~~, ZHUKOV, S. A.

"A Pulse Modulator"

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1/1

Acc. Nr:

AP0034764

Ref. Code: UR 0241

PRIMARY SOURCE: Meditsinskaya Radiologiya, 1970, Vol 15,
Nr 1, pp 43-48

IDENTIFICATION OF FOCAL LESIONS ON SCANNOGRAMS

Ignat'yev, U. V.; Serebryanny, E. G.; Sergiyenko, V. B.;

Summary Filatov, V. I.

Experiments which helped to establish regularities making possible for the physicians to read scannograms and identify local lesions on them are described. Information characteristics are presented and recommendations substantiated, facilitating the choice of optimal scanning conditions.

D. n .

REEL/FRAME

10711474

02

USSR

UDC 621.791.75

IGNAT'YEV, V. G., Candidate of Technical Sciences, and PORITSKIY, M. P.,
Engineer, Institute of Electric Welding imeni Ye. O. Paton, Academy of
Sciences Ukrainian SSR

"Mechanical Properties of Aluminum Alloy 1915 and AMg5 Weld Joints After
Semi-Automatic Welding"

Kiev, Avtomaticheskaya Svarka, No 2, Feb 74, pp 49-50

Abstract: Butt joints of alloys 1915 and AMg5, 8-mm thick, were welded by semi-automatic, argon-arc impulse welding with a consumable electrode of either welding rod 1557-1 or SvAMg6. Welding with 1557-1 was done in one- and two-pass modes in which the welding parameters were changed for the second pass. Welding with SvAMg6 was done in two and three passes with the welding parameters altered for each pass. The welded joints were naturally aged for one month after which they were mechanically tested at room temperature and at -30 and -60° C, and compared with the same properties of the base metals at the same temperatures. The best properties were exhibited by butt joints made using welding rod SvAMg6 and two welding passes. In the case of using either of the two welding rods, the extra welding pass served only to lower the weld joint mechanical properties. Two figures, and two tables.

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USSR

UDC 621.791.754

RABKIN, D. M., Doctor of Technical Sciences, ISHCHEENKO, A. YA., Candidate of Technical Sciences, IGMAT'YEV, V. G., Candidate of Technical Sciences, LOZOV-SKAYA, A. V., Candidate of Technical Sciences, SAYENKO, M. I., Engineer, Electric Welding Institute imeni Ye. O. Paton of the Academy of Sciences UkrSSR, KOZLOVSKAYA, V. P., Candidate of Technical Sciences, and IOGA, M. V.,
[expansion unknown]

"Influence of Admixtures on the Mechanical Properties of Joints of 1201 Aluminum Alloy"

Kiev, Avtomaticheskaya Svarka, No 7(244), Jul 73, pp 53-55

Abstract: Mechanical test results of joints of aluminum alloys, 1201 type (0.15% Fe, 0.12% Si) and 01203 type (0.003% Fe, 0.02% Si), are discussed by reference to curves of the effect of temperature on the strength of the initial metal and the joint and of the effect on the relative elongation of the initial metal. The decrease of the total Fe and Al content to 0.06% in alloys of Al-Cu type improves the mechanical properties of the initial metal and of welded joints at normal temperature. The relative elongation, impact ductility, and the angle of bend of the initial metal and of joints of 01203 alloy are ~ 1.5 times higher than on 1201 alloy. The mechanical properties of both alloys
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USSR

RABKIN, D. M., et al., Avtomaticheskaya Svarka, No 7(244), Jul 73, pp 53-55

improve with decreasing temperature. At liquid He temperature, the resistance to rupture of the initial metal and of joints of O1203 alloy are somewhat higher than on 1201 alloy and the relative elongation of the initial metal is two times higher. Three figures, one table, four bibliographic references.

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